WHAT IS CLAIMED IS:

1. A method for imparting antiviral properties to a hydrophilic polymeric material comprising preparing a hydrophilic polymeric slurry, dispersing an ionic copper powder mixture containing cuprous oxide and cupric oxide in said slurry and then extruding or molding said slurry to form a hydrophilic polymeric material, wherein water-insoluble particles that release both Cu^{++} and Cu^{+} are directly and completely encapsulated within said hydrophilic polymeric material.

2. A method according to claim 1 wherein said ionic copper powder mixture is prepared by oxidation-reduction.

3. A method according to claim 2 wherein said reduction is carried out using formaldehyde as a reductant.

4. A hydrophilic polymeric material for inactivation of a virus comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material and are the primary active component therein.

5. A hydrophilic polymeric material for inactivation of a virus according to claim 4 wherein said particles are of a size of between about 1 and 10 microns.

6. A hydrophilic polymeric material for inactivation of a virus according to claim 4 wherein said particles are present within said hydrophilic material in a concentration of about 1 to 3 w/w%.

7. A hydrophilic polymeric material for inactivation of a virus according to claim 4, wherein said hydrophilic polymeric material is selected from the group consisting of latex, nitrile, acrylics, polyvinyl alcohol and silastic rubber.

8. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a nipple or nipple shield formed from a hydrophilic polymeric material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material.

9. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a bag formed from a hydrophilic polymeric material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material.

10. A device for the inactivation of a virus brought in contact therewith according to claim 9 wherein said bag is a blood storage bag.

11. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a tube formed from a hydrophilic polymeric material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material.

12. A device for the inactivation of a virus brought in contact therewith according to claim 11 wherein said tube is a tube for transfer of body fluids.

13. A device according to claim 12 for the inactivation of a virus contained in a fluid flowing therethrough wherein said tube is provided with projections extending into the lumen thereof in order to cause mixing of the fluid flowing therethrough to assure contact of all of said fluid with surfaces of said polymeric material.

14. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a condom formed from a hydrophilic polymeric

material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material and are the primary active component therein.

15. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a diaphragm formed from a hydrophilic polymeric material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material.

16. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a glove formed from a hydrophilic polymeric material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material.

17. A device for the inactivation of a virus brought in contact therewith, wherein said device is in the form of a glove formed from a hydrophilic polymeric material and coated with a thin layer of a further hydrophilic polymeric material, said further hydrophilic polymeric material comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material.

18. A hydrophilic polymeric material for inactivation of a virus comprising a mixture of water-insoluble particles that release both Cu^{++} and Cu^{+}, which particles are directly and completely encapsulated within said hydrophilic polymeric material and are the sole antiviral component therein.

19. A hydrophilic polymeric material for inactivation of a virus according to claim 18 wherein said polymeric material is in the form of a film.